



Water Conservation Plan

Reviewed and accepted by the Sonoma County Board of Directors on May 19, 1998

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	RECOMMENDED WATER CONSERVATION PLAN	2
2.1	Recommended Water Conservation Financial Plan	2
2.2	Water Contractor's Individual Water Conservation Implementation Plans	2
2.3	1995 Montgomery Watson Study (MW Study)	11
3.0	CURRENT AGENCY WATER CONSERVATION PROGRAMS	12
3.1	Public Information	12
3.2	Water Education	12
3.3	Wholesale Agency Assistance Programs	13

LIST OF TABLES

2 - 1	Water Contractor's Funding Percentage	2
2 - 2	City of Santa Rosa Water Conservation Implementation Plan	3
2 - 3	North Marin Water District Water Conservation Implementation Plan	4
2 - 4	City of Petaluma Water Conservation Implementation Plan	5
2 - 5	City of Rohnert Park Water Conservation Implementation Plan	6
2 - 6	Valley of the Moon Water District Water Conservation Implementation Plan	7
2 - 7	City of Sonoma Water Conservation Implementation Plan	8
2 - 8	City of Cotati Water Conservation Implementation Plan	9
2 - 9	Forestville Water District Water Conservation Implementation Plan	10
2 - 10	Base Demands, Expected Savings, & Annual Delivery Limits (Project Demands)	11
A - 1	Total Cost per Measure and Projected Savings per Contractor	A - 2

APPENDICES

- A. Sonoma County Water Agency Water Conservation Plan Background
- B. Conservation Measures (Program One - MW Study), Water and Wastewater Efficiency/Avoided Cost Study, September 1995
- C. Existing Water Contractor Water Conservation Programs

1.0 INTRODUCTION

The Sonoma County Water Agency (Agency) and the water contractors it serves recognize that water is an essential and limited resource that must be managed and conserved efficiently. This Water Conservation Plan (WCP) serves as a plan for the conservation goals defined in the Agency's Urban Water Management Plan (UWMP). The UWMP, required by the State of California, was prepared in 1985, updated in 1990 and in 1996 at the request of the Agency's water contractors under the discretion allowed in Water Code 10620 (c). Public hearings were held for the three consecutive UWMPs, during which the UWMPs were adopted by the Sonoma County Board of Directors.

The WCP reflects the changes that the Tenth Amended Agreement For Water Supply And Construction Of The Russian River-Cotati Intertie Project (Amendment No. 10) brings to water conservation funding for the Agency's water contractors. Section 2.5 of Amendment No. 10 states that the Agency may undertake or fund any cost effective water conservation measure that will reduce water demands on the Transmission System and that has been approved by the Water Advisory Committee. The Water Supply and Transmission System Project (WSTSP) Draft Environmental Impact Report (DEIR) identified that approximately 6,600 acre feet/year (AFY) demand-savings could reasonably be achieved by the water contractors in 2015 with benefits accrued by the Agency, the water contractors, and the local wastewater agencies. The water contractors may wish to use the estimated water savings from the 1995 Montgomery Watson Study, entitled "Water and Wastewater Efficiency/Avoided Cost Study," to aid in determining which water conservation measures to implement. The MW Study identified cost effective water conservation measures and total projected water savings for each water contractor which are listed in Table A - 1 in Appendix A.

The WCP will be implemented under terms of agreements between the Agency and each water contractor. The Agency proposes to designate at least \$1.5 million annually for a ten-year period (1998-2008), for a funding plan total of approximately \$15,000,000, or as may be approved by mutual consent between the Agency and the water contractors. The WCP provides water contractors with guidelines for implementation of the water conservation provisions of Amendment No. 10. These guidelines are tailored to the needs of each water contractor's service area.

Conservation is an integral part of both the Agency's and the water contractors' long-term resource planning. This WCP proposes to implement any cost-effective measures and/or any other measures that would help to achieve the water savings identified in the WSTSP DEIR. Both the Agency and water contractors seek to actively encourage effective use and preservation of local water resources through this WCP.

2.0 RECOMMENDED WATER CONSERVATION PLAN

2.1 Recommended Water Conservation Financial Plan

The Agency will fund water conservation measures and water reuse programs to reduce water demands on the Transmission System. The Agency proposes to designate at least \$15 million over a 10 year period. The funding amounts available to each water contractor are detailed in Table 2 - 1, Water Contractor's Funding Percentage. Each contractor's percentage is based on their percentage of water entitlement under the proposed new master water supply agreement. Each contractor will determine their water conservation goals and measures to implement for their service areas. Individual funding agreements will be prepared for each contractor's implementation plan. Water conservation funding may be transferred between contractors, if the contractor receiving the funds agrees to obtain the additional water conservation savings identified by the contractor transferring the funds.

Table 2 - 1
Water Contractor's Funding Percentage

	Water Entitlements (AFY)	Water Entitlement %	Total Available Funding 1998-2008
Prime Contractors			
City of Santa Rosa	29,100	40%	\$6,037,344
North Marin Water District	14,100	20%	\$2,925,311
City of Petaluma	13,400	19%	\$2,780,083
City of Rohnert Park	7,500	10%	\$1,556,017
Valley of the Moon District	3,200	4%	\$663,900
City of Sonoma	3,000	4%	\$622,407
City of Cotati	1,520	2%	\$315,353
Forestville Water District *	480	1%	\$99,585
Total	72,300	100%	\$15,000,000

* Forestville Water District's water entitlement is 1.5 mgd and there is no annual delivery limit.

2.2 Water Contractor's Individual Water Conservation Implementation Plans

Tables 2 - 2 through 2 - 9 are summaries of the individual water contractor draft water conservation implementation plans. It is understood that each water contractor may choose to implement any water conservation program for their service area that will reduce their water demand with the goal of achieving the savings identified in the Water Supply and Transmission System Project Draft Environmental Impact Report. This Water Conservation Plan and the individual water contractor's implementation plans will be reviewed every two years, at a minimum, and updated as necessary.

Table 2 - 2

CITY OF SANTA ROSA WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 2,500 AFY*			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
NA	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	NA	Implemented - City of Santa Rosa fully funds.
NA	METERING	NA	Implemented - City of Santa Rosa fully funds.
4***	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	50	Implementation beginning 1998 with comprehensive landscape support program, including audits and incentives for large users.
5	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	60	Indoor portion is implemented in current Rebate Program. Savings from showerhead replacement and leak repair assumed to be ½ total projected savings.
4***	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	<10	Implementation beginning 1998 with comprehensive landscape support program, including audits and incentives for large users.
4***	LOW WATER USE LANDSCAPE ORDINANCE	120	Implementation beginning 1998 with comprehensive landscape support program, including audits and incentives for large users.
2	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	30	Implementation beginning 1998 as extension of “Go Low Flow” program.
4***	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	40	Implementation beginning 1998 with comprehensive landscape support program, including audits and incentives for large users.
6	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	390	Will evaluate at future date.
completed	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	500	Santa Rosa’s “Go Low Flow” program has provided rebates for replacement since 1995.
1	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/PUBLIC TOILET & SHOWER HEAD REPLACEMENT	1,360	Implementation in progress. Santa Rosa’s “Go Low Flow” program has provided rebates for replacement since 1995.
3	URBAN REUSE	320	Implementation of expanded urban reuse projects beginning in 1998.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

*** All implemented in one program

Table 2 - 3

NORTH MARIN WATER DISTRICT WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 1,200 AFY*			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
--	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	NA	Implemented - NMWD fully funds.
5	METERING	NA	Develop and implement a meter replacement program for commercial/industrial/institutional customers.
2	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	80	Develop and implement regulation changes to require large turf water audits for irrigators of large (at least 3 acres) landscapes at a minimum of 5 year intervals.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	30	Review this program at a later date.
3	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	10	Develop and implement a customized rebate program for replacement of any device or technique that can be shown to reduce irrigation water use.
--	LOW WATER USE LANDSCAPE ORDINANCE	180	Review NMWD existing ordinance to determine if it is in compliance with the State's model Ordinance.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	30	Review this program at a later date.
4	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	290	Continue implementing "Cash for Grass," a residential turf replacement program, and the turf limitation rebate program for new development.
1	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	200	Develop and implement residential rebate and special event programs.
--	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/ PUBLIC TOILET & SHOWER HEAD REPLACEMENT	410	Review this program at a later date.
--	URBAN REUSE	764	Review this program at a later date.
--	CIMIS*** Station		Continue maintenance of the existing CIMIS station.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

*** California Irrigation Management Information System

Table 2 - 4

<p align="center">CITY OF PETALUMA WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 1,000 AFY*</p>			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
--	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	NA	Implemented - City of Petaluma fully funds.
--	METERING	NA	Implemented -City of Petaluma fully funds.
5	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	130	Develop and implement a large turf water audit program beginning with the City owned parks. Market the program to irrigators of large (at least 3 acres) landscapes.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	20	Review this program at a later date.
6	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	10	Develop and implement a customized rebate program for replacement of any device or technique that can be shown to reduce irrigation water use.
3	LOW WATER USE LANDSCAPE ORDINANCE	210	Revise and implement a landscape water conservation ordinance, in cooperation with the City, Agency and the green industry.
7	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	10	Identify and contact the top 10% of the industrial and commercial customers; offer audits and incentives to achieve customer implementation; and provide follow-up contact and/or audits at least once every five years.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	50	Review this program at a later date.
--	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	160	Review this program at a later date.
2	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	150	Implement residential rebate and special event programs over the next 10 years to replace 25% of the toilets. Estimated 1 st year cost \$115,000.
1	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/ PUBLIC TOILET & SHOWER HEAD REPLACEMENT	300	Have already completed the 2nd year of a 3-year program. Program goal is to replace 50% of commercial, industrial and institutional toilets , showerheads and faucet aerators for an estimated \$407,000 over 3 years. 861 toilets have been replaced over a two fiscal year period at a cost of \$322,222. The estimated 3 rd year program budget is \$85,000.
--	URBAN REUSE	600	Review this program at a later date.
4	CIMIS*** Station		Install a CIMIS Station at Rooster Run Golf Course.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

*** California Irrigation Management Information System

Table 2 - 5

<p align="center">CITY OF ROHNERT PARK WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 1,400 AFY*</p>			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
--	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	NA	Implemented - City of Rohnert Park funds.
3	METERING	900	Phase one: Prepare a City-wide water meter installation plan. Review existing meters and computer program; identify new meter type and compatible computer system, staffing level and maintenance; new water rate structure. Phase two: Begin installing meters. Phase three: Adopt and set-up billing system.
--	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	40	Review this program at a later date.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	20	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	0	There are no projected water saving for this program
--	LOW WATER USE LANDSCAPE ORDINANCE	30	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	20	Review this program at a later date.
--	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	50	Review this program at a later date.
1	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	150	Completed the 1 st year of a 7-year program, (program goal - replace 15,000 toilets, showerheads and faucet aerators over 7 years for an estimated cost of \$3,143,000). Year one 3,438 commercial and residential toilets replaced; cost \$583,287. Year two program budget \$447,600, estimate 2,000 toilets to be replaced.
2	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/PUBLIC TOILET & SHOWER HEAD REPLACEMENT	240	see ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL) -description above
--	URBAN REUSE	360	Implemented - Santa Rosa Sub-Regional funds.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

Table 2 - 6

VALLEY OF THE MOON WATER DISTRICT WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 200 AFY*			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
1	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPLACEMENT	10	Phase one: Completed. A system-wide water audit was completed by District staff. Valley of the Moon staff determined 200 AFY savings when the polybutylene pipe is replaced. Phase two: Begin an annual replacement program; estimated cost \$60,000 per year.
--	METERING	NA	Completed.
--	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	10	Review this program at a later date.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	0	There are no projected water saving for this program.
--	LOW WATER USE LANDSCAPE ORDINANCE	10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	0	There are no projected water saving for this program.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	0	There are no projected water saving for this program.
--	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	20	Review this program at a later date.
2	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	70	Program 1: Continue funding approximately 80 commercial and residential toilets, showerhead and faucet aerators through the Sonoma Valley High School Special Event Program. Estimated budget \$6,000 - \$10,000. Program 2: Continue funding District's residential rebate program.
3	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/ PUBLIC TOILET & SHOWER HEAD REPLACEMENT	100	See description above.
--	URBAN REUSE	<10	Review this program at a later date.
4	Water Conservation Display		Design and construct a water conservation display.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

Table 2 - 7

<p style="text-align: center;">CITY OF SONOMA WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 200 AFY*</p>			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
--	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	10	Review this program at a later date.
--	METERING	NA	Implemented - City of Sonoma fully funds.
2	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	20	Develop and implement a large turf water audit program beginning with the City owned parks. Market the program to irrigators of large (at least 3 acres) landscapes.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	10	Review this program at a later date.
3	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	<10	Develop and implement a customized rebate program for replacement of any device or technique that can be shown to reduce irrigation water use.
--	LOW WATER USE LANDSCAPE ORDINANCE	20	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	<10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	10	Review this program at a later date.
--	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	20	Review this program at a later date.
1	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	40	Continue funding approximately 80 commercial and residential toilets, showerheads and faucet aerators through the Sonoma Valley High School Special Event Program.
4	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/ PUBLIC TOILET & SHOWER HEAD REPLACEMENT	90	Develop a pilot rebate program targeting California State Parks in the City's service area and a City owned retirement home.
--	URBAN REUSE	<10	Review this program at a later date.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

Table 2 - 8

CITY OF COTATI WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 80 AFY*			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
--	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	NA	Implemented - City of Cotati fully funds.
--	METERING	NA	Implemented - City of Cotati fully funds.
2	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	<10	Develop and implement a large turf water audit program beginning with the City owned parks. Market the program to irrigators of large (at least 3 acres) landscapes.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	<10	Review this program at a later date.
1	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	<10	Develop and implement a customized rebate program for replacement of any device or technique that can be shown to reduce irrigation water use.
--	LOW WATER USE LANDSCAPE ORDINANCE	<10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	<10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	<10	Review this program at a later date.
--	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	20	Review this program at a later date.
--	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	20	Continue implementing City funded toilet rebate program including showerheads and faucet aerators.
--	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/PUBLIC TOILET & SHOWER HEAD REPLACEMENT	30	Review this program at a later date.
--	URBAN REUSE	<10	Review this program at a later date.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

Table 2 - 9

FORESTVILLE WATER DISTRICT WATER CONSERVATION IMPLEMENTATION PLAN Water Savings Goal = 20 AFY*			
Priority List	MEASURES (MW Study Program One**)	PROJECTED SAVINGS PER AFY	IMPLEMENTATION PLAN
--	SYSTEM WATER AUDITS AND LEAK DETECTION/ REPAIR	NA	Implemented - Forestville Water District fully funds.
--	METERING	NA	Implemented - Forestville Water District fully funds.
--	LARGE LANDSCAPE WATER AUDITS (> 3 acres)	<10	Review this program at a later date.
--	RESIDENTIAL WATER AUDITS (Offer indoor and outdoor audits to top 20%)	<10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INCENTIVES FOR IRRIGATION SYSTEM UPGRADES (Rebates after or with audit program)	<10	Review this program at a later date.
--	LOW WATER USE LANDSCAPE ORDINANCE	<10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC INDOOR WATER AUDITS (free audits and incentives)	<10	Review this program at a later date.
--	COMMERCIAL/INDUSTRIAL /PUBLIC OUTDOOR WATER AUDITS (< 3 acres)	<10	Review this program at a later date.
--	WATER EFFICIENT LANDSCAPING & IRRIGATION SYSTEM INCENTIVES (Residential)	<10	Review this program at a later date.
--	ULTRA-LOW-FLOW TOILET REPLACEMENT (RESIDENTIAL)	10	Review this program at a later date.
--	INCENTIVES FOR COMMERCIAL/INDUSTRIAL/PUBLIC TOILET & SHOWER HEAD REPLACEMENT	<10	Review this program at a later date.
2	URBAN REUSE	30	Research the possibility of using recycled water for landscape irrigation.
1	CIMIS*** Station		Install a CIMIS Station at the local high school.

* Identified savings in the Water Supply and Transmission System Project Draft Environmental Impact Report. Forestville Water District's water entitlement is 1.5 mgd and there is no annual delivery limit.

** Montgomery Watson – Water/Wastewater Efficiency Avoided Cost Study, September 1995

*** California Irrigation Management Information System

2.3 1995 Montgomery Watson Study (MW Study)

The water contractors may wish to use the estimated water savings from the 1995 Montgomery Watson Study, entitled "Water and Wastewater Efficiency/Avoided Cost Study," to aid in determining which water conservation measures to implement. The MW Study identified cost effective water conservation measures and total projected water savings for each water contractor which are listed in Table A - 1 in Appendix A. A description of the water conservation measures listed in Table A - 1 is located in Appendix B. Water demand projections established from this information were estimated to be 107,100 AFY and were considered to be "base demands." If all conservation measures and urban water reuse were implemented, base demands could potentially reduce water consumption among the water contractors by more than 8,900 AFY by the year 2015. Total demand reduction is estimated at 6,600 AFY in 2015, as identified in the Water Supply and Transmission System Project Draft Environmental Impact Report (see Table 2- 10).

Table 2 - 10

Base Demands, Expected Savings, & Annual Delivery Limits (Project Demands)			
SERVICE AREA	BASE DEMAND (AFY)	PROPOSED SAVINGS FROM WATER CONSERVATION (AFY)	PROJECT DEMANDS (AFY)
Santa Rosa	31,600	2,500	29,100
North Marin	15,300	1,200	14,100
Petaluma	14,400	1,000	13,400
Rohnert Park	8,900	1,400	7,500
Valley of the Moon	3,400	200	3,200
Sonoma	3,200	200	3,000
Cotati	1,600	80	1,520
Forestville *	500	20	480
Other Transmission System Customers	1,800	N/A	1,800
Marin Municipal Water District	14,300	N/A	14,300
Russian River Customers	9,600	N/A	9,600
Transmission System Losses	2,500	N/A	2,500
TOTAL	107,100	6,600	100,500
TOTAL PROJECT DEMAND (ROUNDED)			101,000
N/A: Not applicable			

* Forestville Water District's water entitlement is 1.5 mgd and there is no annual delivery limit.

3.0 CURRENT AGENCY WATER CONSERVATION PROGRAMS

3.1 PUBLIC INFORMATION

The Agency's existing Public Information Program (Program) is designed to use a variety of means to convey information, including media communications such as interviews, printed materials like brochures, and special events like the county fair and other community forums.

The Program provides comprehensive information to the community about Agency water conservation programs, environmental issues, sanitation, and flood control. The Public Information Program is responsible for promoting communication and cooperation among local, state and federal agencies with interests and responsibilities in the Agency's service area. The Program is responsible for publishing and distributing a brochure to better inform the public about Agency responsibilities and activities and publishing a newsletter to be circulated among relevant government agencies which describes proposed new programs and regulations involving the Russian River. The Agency sponsors a symposium every two years for public and private agencies involved in studies or projects affecting the Russian River, and plans to maintain a central public Agency library of all Agency literature on the Russian River and its tributaries.

The Agency will continue to respond to requests from individual consumers and local organizations seeking water education and conservation information presentations, will continue to serve upon request as public speakers and tour leaders on the topics of water conservation, will continue to distribute conservation literature through traveling exhibits and information centers, and will continue to produce co-operative television, radio, print, slide/films and video production advertising conservation campaigns.

The Memorandum of Understanding Regarding Urban Water Conservation in California (MOU), drafted and administered since 1989 by the California Urban Water Conservation Council (CUWCC), provides urban water agencies a framework in which to implement water conservation. The Agency currently supports the water conservation measure Public Information, BMP 7, as defined in the MOU.

3.2 WATER EDUCATION

The Water Education Program, available to all public and private schools in Sonoma County and northern Marin County, is designed to help educators teach students the value of water as an important natural resource. The Education Program includes in-classroom presentations, student assemblies and teacher workshops, a biannual educational newsletter, and partnership and collaboration with other organizations and interest groups for community projects. Water education and conservation are the most common message for the Agency's existing Public Information Program. The Agency informs the public about specific conservation programs as well as providing basic water conservation information throughout the year.

During the 1996-97 school year, 29 schools, 136 classes and 4,080 kindergarten through sixth grade students were served by the Water Education Program's in-classroom instructional presentations. In addition to these presentations, water education materials were distributed to 46 schools, reaching an additional 3,210 kindergarten through eighth grade students. The Water Education Program also participated as an exhibitor and presenter at a number of community events during the 1996-97 school year. Participation in these environmental education fairs, school

science nights and open houses, children's museums, etc., reached approximately 1,000 people throughout our service area.

Examples of specific programs include the Agency's training workshops, such as LifeLab, and printed materials such as the *Hydro Herald* school newsletter. Distribution of the *Hydro Herald*, and the conservation education water awareness calendar, reached an additional 3,000 students and parents. A pilot field study site, an outdoor laboratory, and development of a regional water education curriculum, oriented toward students in kindergarten through high school, are also an integral part of the current Water Education Program. A portion of the Agency's property in the Wohler area is used as the pilot-study site, and offers students an opportunity to learn about water resources first-hand because of its proximity to the Russian River and other natural resources and to our water supply facilities.

The Water Education and Public Information Program, currently managed by the Agency's Public Information Officer, is staffed by three Water Information Specialists (Specialist). One Specialist interprets and teaches in the pilot field study site, the second Specialist instructs in-class presentations (grades K-6), while the third Specialist assists the Public Information Officer.

The Agency currently supports the water conservation measure School Education, BMP 8, as defined in the MOU.

3.3 WHOLESALE AGENCY ASSISTANCE PROGRAM

Concurrent with the proposed \$15 million funding allocation, the Agency proposes to continue to assist the water contractors through regional technical assistance programs. The Agency will continue to offer rebate programs for water efficient washing machines, and continue to support federal legislation prohibiting sale of toilets greater than 1.6 - gallon per flush (gpf). The Agency will continue implementing the comprehensive school education program, public information programs, and procurement and distribution of equipment and water conserving devices such as showerheads, faucet aerators, and printed materials. The Agency will continue to conduct workshops addressing procedures for large landscape water audit and landscape incentive programs, and assist contractor's with California Irrigation Information Systems (CIMIS) advisory information. The Agency will conduct workshops addressing procedures for calculating water conservation measure savings, cost and cost-effectiveness.

The Water Conservation Program, currently managed by the Agency's Environmental Resources Manager, is staffed by two Water Conservation Specialists.

The Agency proposes to have the necessary staff available to continue to respond to water contractors technical and programmatic questions regarding water conservation.

APPENDIX A

SONOMA COUNTY WATER AGENCY WATER CONSERVATION PLAN BACKGROUND

Historical Overview

The Sonoma County Water Agency, originally the Sonoma County Flood Control and Water Conservation District, is a special district created by Chapter 994 of the State Statutes of 1949, as amended, and operates under the direction of a Board of Directors composed of the members of the Sonoma County Board of Supervisors. The state legislative act which created the Agency and defines its powers and duties gives the Agency the authority to produce and furnish surface water and groundwater for beneficial uses, control flood waters, generate electricity, and provide recreational facilities in connection with the Agency's facilities. Legislation enacted in 1994 added treatment and disposal of wastewater to the Agency's responsibilities.

Agency As Wholesaler

The Agency is the primary provider of potable water for approximately 325,000 people in Sonoma County and northern Marin County. The Agency also provides supplemental potable water to another 170,000 people in the Marin Municipal Water District (MMWD) service area.

Water Contractor As Retailer

The Agency's eight water contractors consist of the cities of Cotati, Petaluma, Rohnert Park, Santa Rosa, and Sonoma; and the Forestville Water District, the North Marin Water District, and the Valley of the Moon Water District. Each water contractor is responsible for maintaining its own retail distribution system, including its own pipelines, water storage tanks, and pumping stations. In addition to the Agency water supply, three water contractors maintain some local sources of water. The water contractors serve as public retailers and in turn provide water to industrial, commercial, domestic, and some agricultural users.

Water Contractor Future Demands

Using adopted City and County general plans, a detailed projection of water demands and demographic projections (1995-2015) was made in the Montgomery Watson Study, Water And Wastewater Efficiency/Avoided Costs Study, September 1995 (MW Study) for residential and non-residential growth was compiled. Water use projections for this anticipated growth were based on historical water use patterns and projected growth rates. They were reduced by savings expected from the effects of plumbing code changes (which went into effect in 1994) resulting from the Federal Energy Policy Act. Water demand projections established from this information were estimated to be 107,000 acre-feet per year (AF/Y) and were considered to be "base demands" as listed in Table 2 - 10, p.11. The MW Study identified cost effective water conservation measures and projected water savings for each water contractor (Table A - 1, Appendix A).

Table A - 1

TOTAL COST PER MEASURE BY CONTRACTOR (1995-2015) PROJECTED SAVINGS PER CONTRACTOR (2015) AFY									
MW STUDY PROGRAM ONE MEASURES AND URBAN WATER REUSE	SANTA ROSA	NORTH MARIN	PETALUMA	ROHNERT PARK	VALLEY OF THE MOON	SONOMA	COTATI	FOREST -VILLE	TOTAL
System Water Audits, Leak Detect. & Repair cost: <i>Projected Savings: AF/y</i>	NA	NA	NA	NA	\$767,000 10	\$537,500 10	NA	NA	\$1,304,500 20
Metering cost: <i>Projected Savings AF/y:</i>	NA	NA	NA	\$4,959,600 900	NA	NA	NA	NA	\$4,959,600 900
Large Landscape water Audits cost: <i>Projected Savings AF/y:</i>	1,045,400 50	\$463,000 80	\$397,300 130	\$253,800 40	\$173,900 10	\$79,800 20	\$55,900 <10	\$23,300 <10	\$2,492,400 >330
Residential Water Audits cost: <i>Projected Savings AF/y:</i>	\$290,700 60	\$132,100 30	\$144,900 20	\$65,900 20	\$52,300 10	\$26,200 10	\$20,900 <10	\$9,800 <10	\$742,800 >150
Commercial/Industrial /Public Incentives for Irrig. System upgrades cost: <i>Projected Savings AF/y:</i>	\$39,700 <10	\$46,400 10	\$97,400 10	\$16,400 <10	\$3,700 <10	\$9,700 <10	\$4,400 <10	\$600 <10	\$218,300 >20
Low Water Use Landscape Ordinance cost: <i>Projected Savings AF/y:</i>	\$196,000 120	\$100,500 180	\$205,200 210	\$42,500 30	\$11,100 10	\$10,700 20	\$20,000 <10	\$3,400 <10	\$589,400 >570
Commercial/Industrial/ Public Indoor water Audits: <i>Projected Savings AF/y:</i>	\$317,100 30	\$91,600 10	\$157,100 10	\$51,600 10	\$23,100 <10	\$40,700 <10	\$22,500 <10	\$12,200 <10	\$715,900 >60
Commercial/Industrial /Public Outdoor water audits: <i>Projected Savings AF/y:</i>	\$912,000 40	\$268,600 30	\$452,000 50	\$142,000 20	\$69,100 <10	\$118,500 10	\$71,600 <10	\$37,300 <10	\$2,071,100 >150
Water Efficient landscaping & Irrigation System Incentives cost: <i>Projected Savings AF/y:</i>	1,425,800 390	881,900 290	944,700 160	187,200 50	197,000 20	174,100 20	178,700 20	22,900 <10	4,012,300 >950
Ultra Low-Flush Toilet Replacement cost: <i>Projected Savings AF/y:</i>	3,294,600 500	1,599,700 200	1,513,500 150	\$722,500 150	\$840,200 70	\$425,300 40	\$243,800 20	102,600 10	\$8,742,200 1,140
Incentives For commercial/ Industrial/Public Toilet/Shower Replace. cost: <i>Projected Savings AF/y:.</i>	\$636,200 1,360	\$402,000 410	\$143,300 300	\$103,600 240	\$55,700 100	\$48,200 90	\$13,100 30	\$28,200 <10	\$1,430,300 >2,530
Urban Reuse cost: <i>Projected Savings AF/y:</i>	\$6,000,000 320 ⁽²⁾	\$3,000,000 764	\$2,800,000 600	1,600,000 360 ⁽¹⁾	700,000 <10	700,000 <10	300,000 <10	100,000 30	\$15,200,000 >2,074
TOTAL ESTIMATED COST - PROGRAM ONE AND URBAN WATER REUSE: ⁽³⁾	\$14,157,500	\$6,985,800	\$6,855,400	\$8,145,100	\$2,893,100	\$2,170,700	\$930,900	\$340,300	\$42,478,800
POTENTIAL SAVINGS, AF/Y - PROGRAM ONE AND URBAN WATER REUSE:	>2,870	2,004	1,640	>1,820	>230	>220	>80	>50	>8,900
TOTAL IDENTIFIED⁽⁴⁾ WATER SAVINGS AF/Y:	2,500	1,200	1,000	1,400	200	200	80	20⁽⁵⁾	6,600

Note: Costs rounded to nearest \$100; NA: Not Applicable

(1) Completed

(2) 57 AF of this has been completed.

(3) Not included in MW Study.

(4) As identified in the Water Supply and Transmission System Project Draft Environmental Impact Report, Project Description.

(5) There is no annual delivery limit for Forestville under the Water Supply and transmission System Project.

APPENDIX B

CONSERVATION MEASURES (PROGRAM ONE) - MONTGOMERY WATSON STUDY, WATER AND WASTEWATER EFFICIENCY/AVOIDED COSTS STUDY, SEPTEMBER 1995 (MW STUDY)

Water Conservation Measures Value Costs And Savings

Thirteen of the water measures as described in the MW Study proved to be cost-effective and appropriate for both the Agency and the water contractors' service area. These measures (referred to in the MW Study as Program One) have a present value cost of nearly \$24 million. The average cost for saving water is approximately \$266 per acre-foot (projected savings over base demand by 2015). This investment, in water saving measures, will avoid approximately \$7.2 and \$43 million in water and wastewater costs, respectively.

Program One conservation measures are described below:

Residential Water Audits: This measure targets existing residents to reduce indoor and outdoor water use, especially during peak use periods. The top 20 percent of residential water users are offered a free audit that includes indoor water conservation measures and development of an irrigation schedule. This could be a cooperative program among organizations that would benefit from its implementation.

System Water Audits, Leak Detection and Repair: This measure targets the water distribution system (the Agency's and the water contractors') and consists of an audit of water distribution systems, including leak detection and repair. A comprehensive system water audit might include source meter testing, breaking down unaccounted-for water and estimating volumes, sample accuracy testing of small meters, and distribution system field tests (usually with sonic listening equipment) comparing billing records and production records.

Metering: Meters would be required on all unmetered water service connections. Implementation may involve establishing a program for retrofitting any existing unmetered connections over a 10-year period and billing by volume of use.

Large Landscape Water Audits and Incentives: This measure consists of conducting audits to increase the irrigation efficiency of landscapes containing more than 3 acres of landscaping. Implementation may take the form of multilingual training and information necessary for implementation.

Commercial/Industrial/Public Incentives for Irrigation System Upgrades: This measure consists of offering customized rebates for any device or technique that can be shown to reduce irrigation water use by more than 750,000 gallons per year per application and reliably provide those savings for at least five years.

Low Water-Use Landscape Ordinances: This measure would consist of checking plans during the building permit approval process and enforcing existing ordinances through random site inspections for new construction. Existing local ordinances in Sonoma County and northern Marin County require the installation of low-water-use plants and efficient irrigation systems.

Commercial/Industrial/Public Indoor Water Audits: This measure consists of contacting building owners and conducting free indoor audits and follow-up audits with incentives sufficient to achieve customer implementation of recommended audit findings.

Commercial/Industrial/Public Outdoor Water Audits: This measure consists of conducting audits of areas with less than three acres of landscaping, with the goal of establishing the correct watering rates.

Water Efficient Landscape and Irrigation System Incentives: This measure would offer incentives to residential customers for the installation of water-efficient landscaping and irrigation systems.

Ultra-Low-Flush Toilet Replacement: This measure would consist of offering rebates, free toilet(s) and/or installation to residential customers who replace their high-water-use toilets with ultra-low-flush toilets.

Incentives for Commercial/Industrial/Public Toilet/Shower Replacement: This measure would consist of offering rebates, free plumbing fixtures, and/or installation to encourage replacement of existing toilets and urinal valves and showerheads for commercial, industrial, or public sector customers.

Landscape Irrigation with Reclaimed Water: This measure would be considered an Urban Reuse Program that would supply reclaimed water to urban irrigated areas (and some commercial/industrial irrigation uses) that currently are served by potable water.

Non-landscape Reclaimed Water Use: This measure would be considered an Urban Reuse Program that would supply reclaimed water for non-irrigation uses to municipal/commercial/ industrial users that currently are served by potable water.

APPENDIX C

EXISTING WATER CONTRACTOR WATER CONSERVATION PROGRAMS

CITY OF SANTA ROSA WATER CONSERVATION PROGRAM

Santa Rosa has had an ongoing water conservation program since the 1976-77 drought. This program became more established in 1991 with the hiring of the first full-time Water Conservation Coordinator. As of January, 1998, the program includes 3 staff positions, an annual operations budget of \$250,000, and a \$3.5 million budget for the "Go-Low-Flow" Plumbing Rebate Program.

Program Overview

Community-wide water resource awareness is supported by regular presentation of conservation related materials and support services to Santa Rosa's 135,000 utility customers served by 43,300 utility connections. Printed materials are available to the public at three permanent information centers in City facilities. Annually, 15,000 - 20,000 printed pieces are distributed to the public through these centers and at public appearances. At least three times a year the utility bill carries a special conservation related insert. A staffed information line (543-3985) fields an average of 75 calls a week supporting the community on efficient water use. The Turf-Time phone line (543-3466) provides weekly lawn water requirements for the Santa Rosa area to an average of 125 callers a week during the summer months.

Since 1992, utility customers have received free high-quality, low-flow showerheads and faucet aerators, available at two city facilities.

After a successful 2-year pilot study, the "Go-Low-Flow" Plumbing Rebate Program was launched May 1, 1995, with a goal of reducing water use and wastewater flow by one million gallons per day within five years. As of May 1998, 21,000 ultra-low-flush toilets have been installed as a result of this program. Analysis of water use reduction indicated these upgrades are resulting in a 817,500 gallons per day (or 0.818 MGD) reduction in water use and wastewater flow.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following summary of the status of Santa Rosa's conservation program offers a detailed picture of Santa Rosa's achievements.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS The "Go-Low-Flow" Plumbing Rebate Program is available to all utility customers and includes an interior audit and fixture upgrade for all participants (see Ultra Low Flush Replacement Program). This program is target marketed to the top water users with site surveys, payback period analysis, and the availability of low-interest loans.

PLUMBING, NEW AND RETROFIT

Enforcement Of Water Conserving Plumbing Fixture Standards Including Requirement For Ultra Low Flush Toilets In All New Construction Beginning January 1, 1992

Adopted ULF toilets for new and remodeled construction in June 1991, six months before the state requirements were in place.

Support Of State And Federal Legislation Prohibiting Sale Of Toilets Using More Than 1.6 Gallons Per Flush

City building staff and local building and plumbing industry professionals were contacted through mailings, training and ongoing phone support.

Plumbing Retrofit

Sent kits with toilet retrofit devices, coupons for showerheads, faucet aerators, and toilet dye tabs to all Santa Rosa residents in June 1991. Since 1992, twice a year, utility bill inserts announce the availability of free, high-quality, low-flow showerheads and faucet aerators to all utility customers. Every May all customers are sent toilet leak detection kits. Additionally, participation in the "Go-Low-Flow" Plumbing Rebate Program requires replacement of showerheads and faucet aerators.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

There is a full audit of the City's distribution system annually. City's billing department notifies utility customers of potential leaks through screening increases in water use and contacting customers individually. Field staff responds to water waste calls and support customers in finding the source of the leaks. The City will continue to implement this program.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

All 43,300 connections are metered. An ongoing meter testing/replacement/ upgrade program assures proper meter registering (see Conservation Pricing for information on commodity rates). The City will continue to implement this program.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Large irrigation audits are available on request to any Santa Rosa utility customer. City supports training of landscape professionals in the State audit methods, so that local irrigators have the expertise to perform their own irrigation evaluations. City maintains a phone-in information line, Turf-Time 543-3466, which reports weekly evapotranspiration as recorded at local CIMIS (California Irrigation Management Information Systems) station # 83. City sponsors and maintains the CIMIS station. In 1998, the City will purchase a second station, to be sited within city limits.

Since 1988, the City and Agency have co-sponsored training for approximately 100 professionals in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. City offers training and support of the local landscape professionals through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training (CLT) classes and testing. The City will continue to implement this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

In accordance with the Water Conservation in Landscaping Act" (AB 325), City adopted the "Santa Rosa Water Efficient Landscape Policy" in January 1993. The City will continue to implement this program.

PUBLIC INFORMATION

The City maintains three public information distribution centers in City facilities; stocks and supplies at least 18 different conservation publications to community groups and individuals on request at no cost to the customer; sends introductory conservation materials to all new customers; includes past year's usage and clear rate explanation on utility bill; provides speakers to local community groups (Chamber of Commerce, Rotary, home-owners' associations); conducts annual Water Awareness Month campaign (May) including Water Conservation Awards at City Council, water conservation poster contest in elementary schools, and annual toilet leak kit mailing; places radio and newspaper advertisements for key programs; installs and staffs public market display on conservation topics; coordinates with wholesale supplier and other utilities (e.g. PG&E) when possible. The City will continue to implement this program.

SCHOOL EDUCATION

A comprehensive program is administered by our wholesale supplier, the Agency. Water conservation staff give classroom presentations on request and annually contact all schools in the service area with offers of conservation materials and classroom support.

COMMERCIAL AND INDUSTRIAL WATER CONSERVATION

On request, City performs audits for commercial customers. The city-wide plumbing rebate program, launched May, 1995, targets largest water users and provides site evaluations/audits as well as incentives for plumbing upgrades. The rebate program also allows industrial/commercial fixtures upgrades other than toilet/showerhead/aerator to qualify for rebates. The City will continue to implement this program at least through the year 2000.

NEW COMMERCIAL AND INDUSTRIAL WATER USE REVIEW

Review of new projects includes assuring that all codes and regulations for efficient water use are complied with; review beyond current standards is not in place. The City will continue to implement this program.

CONSERVATION PRICING, WATER SERVICE AND SEWER SERVICE

The rate structure has several very effective conservation components: approximately 80% of water and sewer revenues are generated from commodity charges while 20% are from fixed charges; rates alone cover the cost of providing service; sewer charges are based on metered water use. As of January 1, 1996, water and sewer demand fees for new connections are based on the actual projected water demand or sewer flow; if a customer can demonstrate highly efficient fixtures or processes they are assessed lower demand fees.

LANDSCAPE WATER CONSERVATION FOR NEW AND EXISTING SINGLE FAMILY HOMES

The City's Water Efficient Landscape Policy is recommended, but not required, for new and existing single-family homes. The City provides guidelines and effective information to residents on request and through annual bill inserts and information displays; and maintains the turf irrigation information line, Turf-Time. The City will continue to implement this program.

WATER WASTE PROHIBITION

A full-time staff person responds to water emergencies including water waste calls. Though there is no current measure prohibiting specific water waste practices, City Code does require all utility customers to maintain and repair their water system, and vests the City Engineer with the authority to require the customer to "replace, repair, maintain or discontinue use of " any water using fixtures or system on the customer's side of the meter. The City will continue to implement this program.

WATER CONSERVATION COORDINATOR

A full-time coordinator was hired in January, 1991. A technician was added to the conservation staff in June, 1994; and a Water Conservation Representative was hired in January, 1995, to implement the "Go-Low-Flow" Plumbing Rebate Program. The City will continue to implement this program.

FINANCIAL INCENTIVES

As of April 1996, financial incentives are available for efficient fixtures other than toilets/ showerheads/faucet aerators within the "Go-Low-Flow" Program. Plumbing upgrades that realize sustainable reductions in water use and sewer flow are eligible for rebates under the "Go-Low-Flow" program. The City will continue to implement this program.

A joint incentive washer rebate program with PG&E and the Agency was initiated in 1998. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

ULTRA LOW FLUSH TOILET REPLACEMENT

From 1992-94, City performed a 3-phase pilot study to evaluate the effectiveness of toilet replacement with rebate incentive for reducing water use and wastewater flows. The pilot study alone resulted in rebates of \$50-\$150 per toilet for 1700 toilet replacements. In May, 1994, the Board of Public Utilities and the City Council approved a 5-year, \$3.5 million city-wide rebate program. The "Go-Low-Flow" Plumbing Rebate Program was launched May 1, 1995, and offers rebates of \$100 for toilet/showerhead/faucet aerator replacement to all utility customers. As of May 1998 the city-wide effort and pilot study combined have over 8,500 participants changing a total of 21,000 toilets and the associated showerheads and faucet aerators. Analysis of winter water usage indicated the combined effect of the pilot and city-wide efforts is resulting in a 0.818 MGD reduction in water usage and the associated wastewater flow. The City will continue to implement this program.

NORTH MARIN WATER DISTRICT WATER CONSERVATION PROGRAM

Program Overview

In 1992, the North Marin Water District (District) Board of Directors approved Regulation No. 15. The purpose of this resolution is to assure that water resources available to the District are put to reasonable beneficial use, that the instream values of Novato Creek and the Russian River are preserved to the maximum possible extent, and that the benefits of the District's water service extend to the largest number of persons.

In 1992, the District Board of Directors approved Regulation No. 1 of the District's General Provisions which established reduced connection fees for public parks, provided strict turf irrigation requirements are met in accordance with this regulation.

In 1992, the Marin County Board of Supervisors adopted Ordinance No. 3118, the Natural Resources Ordinance, pertaining to water efficiency in landscaping based on climatic, geological and topographical conditions.

In 1996, the District Board of Directors approved Resolution No. 96-11 of the District's updated Water Shortage Contingency Plan for the greater Novato area.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

As a result of extensive study of water use characteristics in the Novato service area showing that outside use accounts for 40% of all use, the District aggressively promotes water conservation programs focused on turf irrigation. The District has implemented credits for reducing planned turf installation in new development, rebates for customers removing turf, and large landscape water audits, all with the aim of reducing turf irrigation.

Community-wide water resource awareness is supported by regular presentations of conservation related materials and support services to the District's 17,780 customers. Printed materials are available to the public in the District's administrative office. The Lawn Water Advisory phone line (415/897-1418 x 555) provides daily water requirements for irrigating turf in the Novato area to an average of 10 callers a week during the summer months.

The following is a summary of the District's conservation program.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the District provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E. The District implemented a continuous bill adjustment policy and allocated customer service staff to reduce excessive water use and promote water conservation for all customers. The District will continue to implement the continuous bill adjustment program, and proposes to identify the top 20% of water users in each class.

PLUMBING, NEW AND RETROFIT

Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush toilets in all new construction beginning January 1, 1992

The District drafted the state legislation requiring use of water conserving plumbing fixtures. District Regulation No. 15 adopted ultra-low-flush (ULF) toilets for new and remodeled construction in April 1991.

Support of state and federal legislation prohibiting sale of toilets using more than 1.6 gallons per flush

District, city department building staff and local building and plumbing industry professionals were contacted through mailings, training and ongoing phone support.

Plumbing retrofit

The District sent and distributed kits with toilet retrofit devices, coupons for showerheads (co-sponsored with the Agency and PG&E), faucet aerators, and toilet dye tabs to all Novato residents in June 1991. In 1992, District customers received free high quality low-flow showerheads and faucet aerators. The District will continue to implement this device (showerhead and faucet aerators) distribution program.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

There is a full audit of the District's distribution system annually, documented in the District's annual report. In 1994, accounting and operations staff attended the American Water Works Association (AWWA) training for conducting water audits and leak detection. The billing department notifies water customers of potential leaks through screening increases in water use and individually contacting customers. Field staff responds to water waste calls and support customers in finding the source of the leaks. A full system leak detection project was last completed in 1984. The District will continue to implement this program.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

All 17,780 connections are metered through June 30, 1996, and a periodic meter testing, replacement, and upgrade program assures proper meter registering (see Conservation Pricing for information on commodity rates). The District will continue to implement this program. The District purchased a meter data logger in May, 1996, in order to verify the sizing of large water meters. On-going staff training is provided in meter data logging and analysis.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the District and Agency have co-sponsored training for approximately 150 professionals in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. The District continues to offer training and support of our local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training (CLT) classes and testing

The District maintains a phone information line, 415/892-1418 x 555, which reports weekly evapotranspiration as recorded at the local CIMIS (California Irrigation Management Information Systems) station # 63. The District sponsors and maintains the CIMIS station.

District Regulation No. 15 promotes efficient turf irrigation and design, subsurface drip systems, and prohibits narrow turf strips in landscaped areas.

District Regulation No. 1 states connection fees for public parks are minimized, provided strict turf irrigation requirements are met in accordance with the District's Regulation No. 15.

In 1991 the District undertook a study co-sponsored with the Western Area Power Administration's Conservation and Renewable Energy Program to identify, develop and evaluate conservation strategies which provide shared savings of electrical energy and water resources. Additional turf water audit studies confirming water savings have been co-sponsored with the City of Novato Parks and Recreation Department. The District will continue to implement this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

In accordance with the Water Conservation in Landscaping Act (AB 325), the County of Marin adopted Ordinance No. 3118 in cooperation with the District. The District cooperated with the City of Novato which adopted the State ordinance.

PUBLIC INFORMATION

The District maintains a public information distribution center at the District office; stocks and supplies at least 20 different conservation publications to community groups and individuals on request at no cost to the customer; sends introductory conservation materials to all new customers; includes past year's usage and clear rate explanation on utility bill; provides speakers to local community groups (Chamber of Commerce, Rotary, home-owners' associations); places radio and newspaper advertisements for key programs, and coordinates with

wholesale supplier and other utilities (e.g. PG&E) when possible and plans to conduct annual Water Awareness Month campaign (May). The District will continue to implement this program and cooperate with MMWD with public information displays at county fairs and other events.

SCHOOL EDUCATION

A comprehensive program is administered by the Agency. The District staff and Agency water conservation staff conduct classroom presentations on request and annually contacts all schools in the service area with offers of water-related field trips, conservation materials and classroom support.

In 1995, the District co-sponsored with the Agency and the Novato Sanitary District (NSD), a teacher training workshop entitled, "Water Supply, Treatment, & Distribution, What About Wastewater?". Approximately 20 teachers attended, and six staff members presented material. The workshop commenced with an introduction by the District's General Manager, lunch was provided at the Stafford Treatment Plant and the workshop concluded with a two-hour tour of the NSD Sanitary Treatment Plant. The District will continue to implement this program.

NEW COMMERCIAL AND INDUSTRIAL WATER USE REVIEW

Review of new projects includes assuring that all codes and regulations for efficient water use are complied with. District Regulation No. 1 requires land use to be established before water service can be provided and that the District Engineer provide a detailed review of all facility plumbing and irrigation design when applicable.

CONSERVATION PRICING, WATER SERVICE AND SEWER SERVICE

District Regulation No. 54 establishes water rates. The District commodity rates are designed to recover the costs of providing service and are uniform regardless of quantity of water used. Cost of sewer service by Novato Sanitary District is calculated annually based on the District's metered water use.

LANDSCAPE WATER CONSERVATION FOR NEW AND EXISTING SINGLE FAMILY HOMES

The New Homeowner Rebate and the Cash for Grass (rebate for replacing turf with water-efficient landscaping) programs offer incentives to new and existing single-family and multi-family customers to install water-efficient landscaping and irrigation systems. Multi-family customers with more than three acres of turf can qualify for one of the other nonresidential audit and rebate programs.

WATER WASTE PROHIBITION

Customer service staff responds to water emergencies including water waste calls. District Regulation No. 15 prohibits waste of water, and District Regulation No. 10 requires all water customers to maintain and repair their water system. The District will continue to implement this program.

WATER CONSERVATION COORDINATOR

The District utilizes the Agency's Water Conservation Specialists. The District will continue to support this program.

FINANCIAL INCENTIVES

Refer to Landscape Water Conservation For New And Existing Single Family Homes.

A joint incentive washer rebate program with PG&E and the Agency was initiated in 1998. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased). The District will continue to implement this program and offer financial incentives to upgrade washing machines, remove turf, landscape with water conserving materials, maintain efficient irrigation in public parks, conduct audits to reduce water bills in commercial use and install materials available in retrofit kits.

ULTRA LOW FLUSH TOILET REPLACEMENT

The District is in the initial development stage for a residential and non-residential ULF toilet replacement program co-operating with the Novato Sanitary District, the Agency and local plumbers and hardware suppliers.

CITY OF PETALUMA WATER CONSERVATION PROGRAM

Program Overview

In 1992, the City of Petaluma (City) adopted Resolution 92-215 NCS (New Charter Series) specifying planning criteria for a new wastewater facility. Criterion IV of the Resolution calls for a water conservation program. The need for water conservation is reflected in the *City's Wastewater Facilities and Long Range Management Program/Final Project Report* dated December 29, 1995.

In 1994, the City issued a Proclamation for Water Awareness Month. Agency staff members made a presentation to the City Council describing an expanded water conservation program.

In 1996, the City Council approved the revised Urban Water Shortage Contingency Plan.

In 1997 the City, by Council Resolution No. 97-0082, implemented a commercial/industrial/institutional (CII) water and wastewater conservation retrofit program for toilets. The replacement goal is targeted at 50% by the year 2000. In the first year of the program, 861 toilets were replaced, which is approximately 24% of the targeted goal.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following is a summary of the City's conservation program.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the City provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E. Customer service staff is allocated to reducing excessive water use and promoting water conservation for all customer classes.

PLUMBING, NEW AND RETROFIT

Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush toilets in all new construction beginning January 1, 1992

The City supports and enforces installation of ULF toilets in all new construction, and is in full compliance with January 1992 state law.

Support of state and federal legislation prohibiting sale of toilets using more than 1.6 gallons per flush

City building staff and local building and plumbing industry professionals were contacted through ongoing phone support.

Plumbing retrofit

The City distributed kits with toilet retrofit devices, coupons for showerheads (co-op program with PG&E), faucet aerators, toilet dye tabs and written instructions in both English and Spanish to all Petaluma residents in May 1991. Since 1997, City customers receive free high quality low-flow showerheads and faucet aerators. The City will continue to implement this program.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

The City's distribution system is monitored for leaks on an on-going basis. The billing department notifies water customers of leaks and contacts customers individually. Field staff respond to water waste calls and support customers in finding the source of the leaks. The City will continue to implement this program.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

The City meters all water bought and sold. All 16,511 active and inactive connections are metered; an ongoing meter testing/replacement/upgrade program assures proper meter registering. The City will continue to implement this program.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the City and Agency have co-sponsored training for approximately 25 professionals working in the City of Petaluma service area, in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. The City offers training and support of local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training classes and testing. The City will continue to support this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

In accordance with the Water Conservation in Landscaping Act (AB 325), the City adopted the State's Landscape Water Conservation ordinance in 1994.

PUBLIC INFORMATION

A comprehensive program is administered by the Agency. Water conservation staff conduct presentations on request; to local community groups (Garden Clubs, Rotary, home-owners' associations). The City maintains a public information distribution center in City facilities; and stocks and supplies at least 12 different conservation publications to community groups and individuals at no cost to the customer. The City staffs a water conservation booth annually at the Sonoma-Marin Fair; and coordinates with wholesale supplier and other utilities (e.g. PG&E) when possible.

SCHOOL EDUCATION

A comprehensive program is administered by the Agency. The City staff and Agency water conservation staff conduct classroom presentations on request and annually contacts all schools in the service area with offers of water-related fieldtrips, conservation materials and classroom support.

COMMERCIAL AND INDUSTRIAL WATER CONSERVATION

In 1997, the City implemented a commercial/industrial/institutional water and wastewater conservation retrofit program for toilets. The replacement goal is targeted at 50% by the year 2000. In the first year program, 861 toilets were replaced, which equals approximately 24% of the targeted goal.

LANDSCAPE WATER CONSERVATION FOR NEW AND EXISTING SINGLE FAMILY HOMES

City's Water Efficient Landscape Policy is recommended, but not required, for new and existing single-family homes. City provides guidelines and effective information to residents upon request.

WATER CONSERVATION COORDINATOR

The City utilizes the Agency's Water Conservation Specialists. The City will continue to support this program.

FINANCIAL INCENTIVES

A joint incentive washer rebate program with PG&E and the Agency was initiated in 1998. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The City's commercial water conservation program consists of a rebate option for customers who prefer to buy equipment (toilets, urinals, flushometer valves, and shower heads) from their own supplier and/or want to use their own contractor or qualified in-house maintenance personnel. The rebates are \$100 for a gravity flush tank-type toilet and \$150 for a flushometer-type replacing existing with new water-conserving fixtures in industrial, commercial, and institutional facilities in the City's service area.

ULTRA LOW FLUSH TOILET REPLACEMENT

Since 1997, the City's commercial water conservation program consists of replacing existing toilets, urinals, flushometer valves, and shower heads with new water-conserving fixtures in industrial, commercial, and institutional facilities in the City's service area over a three-year period. The Program gives applicants two options: 1) Direct-Install option where free fixtures are supplied and installed by a City's qualified contractor and 2) Rebate option for customers who prefer to buy equipment from their own supplier and/or want to use their own contractor or qualified in-house maintenance personnel. The rebates are \$100 for a gravity flush tank-type toilet and \$150 for a flushometer-type toilet.

CITY OF ROHNERT PARK WATER CONSERVATION PROGRAM

Program Overview

In 1985, Council Resolution No. 91-46 requested the citizens of Rohnert Park to participate in a voluntary water conservation program and pledged the City's participation and cooperation with the Agency in water conservation efforts. Community-wide water resource awareness is supported by regular presentation of conservation related materials and support services to the City's 8,295 water customers. Printed materials are available to the public at City headquarters. At least 6 times a year the water bill carries a special conservation related insert.

In 1988, the City by Council Resolution No. 88-60 began the use of reclaimed wastewater for irrigation of two City-owned 18-hole golf courses. Approximately 2 million gallons per day are recycled for the 250 acres of golf course irrigation.

In 1991, the City passed Resolution No. 91-52 to use reclaimed wastewater for irrigation at Roberts Lake Park, Roberts Lake Road and the Park 'n Ride lot landscaped area. Approximately 12,000 gallons/day is recycled for this ten acre project.

In 1992, the City by Council Resolution No. 92-128 implemented a water/wastewater conservation retrofit program for toilets. The program retrofitted 8,416 toilets to 1.6 gallon per flush saving 194,000 gallons of water per day.

In 1995 the City by Council Resolution No. 95-15 began use of reclaimed wastewater throughout the City for irrigation of parks, school grounds, and private commercial lawn and landscaped areas. Approximately 1 million gallons per day are recycled for this 250-acre project.

In 1996, the City by Council Resolution No. 96-72 approved the revised Water Shortage Contingency Plan.

In 1997, the City by Council Resolution No. 97-50 approved a seven-year water/wastewater conservation retrofit program for toilets. The first year of the program, 3,608 toilets and urinal valves were replaced; 2,405 through direct installation, 335 through the rebate program, and 868 through a special event fund raiser. In 1998, the City Council voted to continue this program implementation.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following is a summary of the City's conservation program.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the City provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E. In 1992, the City passed Resolution No. 92-128 in order to conserve water and preserve wastewater capacity. The City Council awarded a contract to US Aquatect, Inc. for approximately \$100,000 to implement the first phase of a Water/Wastewater Conservation Retrofit Program.

Ordinance No. 568 and Resolution No. 92-158 in 1992, established a Water/Wastewater Conservation fee for the implementation of a 1.6 gallon per flush toilet and a 2.5 gallons per minute showerhead retrofit program. The cost of the program was funded from the City's Per Acre for Development Fee, and Sewer Service Connection Fee. The City will continue to implement this program.

PLUMBING, NEW AND RETROFIT

Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush toilets in all new construction beginning January 1, 1992

The City supports and enforces installation of ULF toilets in all new construction, and is in full compliance with January 1992 state law.

Support of state and federal legislation prohibiting sale of toilets using more than 1.6 gallons per flush

The City building staff, and local building and plumbing industry professionals, were contacted through mailings, training's and ongoing phone support.

Plumbing retrofit

The City sent kits with toilet retrofit devices, coupons for showerheads, faucet aerators, and toilet dye tabs to all Rohnert Park residents in June 1991. Since 1997, City customers received free high quality low-flow showerheads and faucet aerators. The City will continue to implement this program.

In 1992, the City passed Resolution No. 92-128 in order to conserve water and preserve wastewater capacity. The City Council awarded a contract to US Aquatect, Inc. for approximately \$100,000 to implement the first phase of a Water/Wastewater Conservation Retrofit Program. The Water/Wastewater Conservation Retrofit Program was expanded in 1996, and the City provided a total of \$331,000, which retrofitted approximately 8,416 toilets to 1.6 gallon per flush toilets, saving approximately 194,000 gallons of water per day.

Ordinance No. 568 and Resolution No. 92-158 in 1992, established a Water/Wastewater Conservation fee for the implementation of a 1.6 gallon per flush toilet and a 2.5 gallons per minute showerhead retrofit program. The cost of the program was funded from the City's Per Acre for Development Fee, and Sewer Service Connection Fee.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

The City's distribution system is monitored for leaks on an on-going basis. The City's billing department notifies water customers of leaks and contacts customers individually. Field staff respond to water waste calls and support customers in finding the source of the leaks. The City will continue to implement this program.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

Commodity rates for all except single family homes. Meters are being installed on all new water connections, however, retrofitting of older single family homes has not yet started. The City will continue to support and implement this program.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the City and Agency have co-sponsored training for approximately 80 professionals working in the City of Rohnert Park service area, in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. City offers training and support of our local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training (CLT) classes and testing. The City will continue to implement this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

In accordance with the Water Conservation in Landscaping Act (AB 325), the City adopted Resolution No. 91-191 Water Efficient Landscape Guidelines. The City will continue to implement this program.

PUBLIC INFORMATION

City maintains a public information distribution center through the Agency and stocks and supplies at least 20 different conservation publications to community groups and individuals on request at no cost to the customer; sends introductory conservation materials to all new customers; provides speakers to local community groups (Chamber of Commerce, Rotary, home-owners' associations); places television and newspaper advertisements for key programs; installs and staff public displays on conservation topics; coordinates with wholesale supplier and other utilities (e.g. PG&E) when possible.

SCHOOL EDUCATION

A comprehensive program is administered by the Agency. The City staff and Agency water conservation staff conduct classroom presentations on request and annually contacts all schools in the service area with offers of water-related field trips, conservation materials and classroom support.

COMMERCIAL AND INDUSTRIAL WATER CONSERVATION

The City's Wastewater Re-Use project utilizes reclaimed water for irrigation of City owned turf and landscaped areas, City Resolution No. 95-15. The City will continue to implement this program.

NEW COMMERCIAL AND INDUSTRIAL WATER USE REVIEW

Review of new projects includes assuring that all codes and regulations for efficient water use are complied with. The City will continue to implement this program.

LANDSCAPE WATER CONSERVATION FOR NEW AND EXISTING SINGLE FAMILY HOMES

The Water Efficient Landscape Policy is recommended, but not required, for new and existing single-family homes. The City provides guidelines and current water conservation information to residents on request and through annual bill inserts, press releases and information display. The City will continue to support implementation of this program.

WATER WASTE PROHIBITION

The City Ordinance No. 76, Section 6, states that no customer shall knowingly permit leaks or waste of water. Where water is wastefully or negligently used on a customer's premises, seriously effecting the general service, the City may discontinue the service if such conditions are not corrected within five (5) days after giving the customer written notice. The City will continue to implement this program.

WATER CONSERVATION COORDINATOR

The City utilizes the Agency's Water Conservation Specialists. The City will continue to support this program.

FINANCIAL INCENTIVES

A joint incentive washer rebate program with PG&E and the Agency was initiated in 1998. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

See Ultra-Low-Flush Toilet Replacement (below).

ULTRA LOW FLUSH TOILET REPLACEMENT

In January, 1997, the City embarked on a program of replacing toilets with more efficient ultra low-flush toilets (ULFTs) in order to conserve water resources and thereby minimize expensive wastewater treatment and disposal costs and mitigate impacts on the water resources of the Russian River.

The results of the first year program is replacement of 3,608 (approximately 10% of the toilet inventory) for a total cost (City and Agency's share, including administration costs charged by the Agency) of \$582,476 with an average unit cost of \$161 per replaced toilet. The Direct-Install Program, which provided free installation, accounted for 68% of the replacements; the special event fund raiser program, a toilet fixture giveaway program sponsored by Rancho Cotate High School, accounted for 23%; and the Rebate Program replaced 9% of the total replaced toilets. The City will continue to implement this program.

VALLEY OF THE MOON WATER DISTRICT WATER CONSERVATION PROGRAM

Program Overview

Community-wide water resource awareness is supported by regular presentation of conservation related materials and support services to the District's 6,464 customers.

In 1996, the District, in cooperation with the City of Sonoma and the Sonoma Valley County Sanitation District, initiated a ultra-low-flush (ULF) toilet give-away program. This program is expected to continue.

In 1996, the Board of Directors approved Resolution No. 960302 adopting an updated Shortage Contingency Plan.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following is a summary of the District's conservation program.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the District provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E. Since 1997, the District makes available to all customers free high quality low-flow showerheads and faucet aerators. The District will continue to implement this program.

PLUMBING, NEW AND RETROFIT

Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush toilets in all new construction beginning January 1, 1992

The District supports and enforces installation of ULF toilets in all new construction, and is in full compliance with January 1992 state law.

Support of state and federal legislation prohibiting sale of toilets using more than 1.6 gallons per flush

District building staff and local building and plumbing industry professionals were contacted through mailings, training and ongoing phone support.

Plumbing retrofit

The District sent kits with toilet retrofit devices, coupons for showerheads, faucet aerators, and toilet dye tabs to all customers in June 1991. Since 1997, District customers receive free high quality low-flow showerheads and faucet aerators.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

A system-wide water audit was completed by District staff. The District staff estimated 200 AFY of water can be saved through a pipe replacement program of poly-butylene (PVC) pipe. An annual replacement program is expected to begin in 1998, with an estimated cost to the District of approximately \$60,000 per year.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

All of the District's 6,464 connections are metered; an ongoing meter testing, replacement, and upgrade program assures proper meter registering.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the District and Agency have co-sponsored training for approximately 25 professionals working in the Valley of the Moon Water District service area, in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. The District offers training and support of our local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training (CLT) classes and testing. The District will continue to implement this program.

PUBLIC INFORMATION

The District maintains a public information distribution center through the Agency and stocks and supplies at least 17 different conservation publications to community groups and individuals on request at no cost to the customer; sends introductory conservation materials to all new customers; provides speakers to local community groups (home-owners' associations); places radio and newspaper advertisements for key programs (ULF toilet special event); installs and staffs public displays on conservation topics; and coordinates with wholesale supplier and other utilities (e.g. PG&E) when possible.

SCHOOL EDUCATION

A comprehensive program is administered by the wholesale supplier, the Agency. Water conservation staff conduct classroom presentations on request and annually contact all schools in the service area with offers of conservation materials and classroom support. The District will continue to implement this program.

NEW COMMERCIAL AND INDUSTRIAL WATER USE REVIEW

Review of new projects includes assuring that all codes and regulations for efficient water use are complied with. The District will continue to implement this program.

LANDSCAPE WATER CONSERVATION FOR NEW AND EXISTING SINGLE FAMILY HOMES

The Water Efficient Landscape Policy is recommended, but not required, for new and existing single family homes. The District will continue to recommend this program.

WATER CONSERVATION COORDINATOR

The District utilizes the Agency's Water Conservation Specialists. The District will continue to support this program.

FINANCIAL INCENTIVES

In 1998, a joint incentive washer rebate program with PG&E and the Agency was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased). The District will continue to implement this program.

ULTRA LOW FLUSH TOILET REPLACEMENT

In 1996, the District, in cooperation with the Sonoma Valley County Sanitation District, initiated a ULF toilet give-away program. The District hired a consultant to implement a community-based organization toilet retrofit program. ULF Toilet Give-away programs #1, 2, and 3 gave away 2,400 toilets with the assistance of Sonoma Valley High School (SVHS). The students raised approximately \$36,000 for their Leadership Class. The District will continue to implement this program annually.

CITY OF SONOMA WATER CONSERVATION PROGRAM

Program Overview

The City supports community-wide water resource awareness by regular presentation of conservation related materials and support services to all 3,467 customers.

In 1996, the City by Council Resolution No. 22-96 approved the revised Urban Water Shortage Contingency Plan.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following is a summary of the City's conservation program.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the City provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E. The City has furnished indoor and outdoor water conservation information and continues to make materials available to customers.

PLUMBING, NEW AND RETROFIT

Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush toilets in all new construction beginning January 1, 1992

The City supports and enforces installation of ULF toilets in all new construction, and is in full compliance with January 1992 state law.

Support of state and federal legislation prohibiting sale of toilets using more than 1.6 gallons per flush

City building staff and local building and plumbing industry professionals were contacted through mailings, training and ongoing phone support.

Plumbing retrofit

Sent kits with toilet retrofit devices, coupons for showerheads, faucet aerators, and toilet dye tabs to all Sonoma residents in June 1991. Since 1997, City makes available to all customers free high quality low-flow showerheads and faucet aerators.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

The City has an ongoing program to replace water mains and services in areas most susceptible to leakage. Leak Detection equipment is used in areas of suspected leakage. Unaccounted for water in the City distribution system averages approximately 11 percent. Most system leakage is caused by older poly-butylene (PVC) service lines which are being replaced on a street by street basis.

METERING WITH COMMODITY RATES FOR ALL CONNECTIONS.

The City will continue to implement this program by requiring metering of all new water connections.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the City and Agency have co-sponsored training for approximately 20 professionals working in the City of Sonoma service area in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. The City continues to offer training and support of our local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training (CLT) classes and testing. The City will continue to implement this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

In accordance with the Water Conservation in Landscaping Act (AB 325), the City adopted the Ordinance #92-25, Water Efficient Landscaping Ordinance. The City will continue to implement this program.

PUBLIC INFORMATION

A comprehensive program is administered by the wholesale supplier, the Agency. Conservation materials are available at City Hall, and the City includes last year's water usage on all customer's water bills. The City will continue to implement this program.

SCHOOL EDUCATION

A comprehensive program is administered by the wholesale supplier, the Agency. The Agency's water education staff conduct classroom presentations on request and annually contacts all schools in the service area with offers of water-related field trips, conservation materials and classroom support. The City will continue to implement this program.

NEW COMMERCIAL AND INDUSTRIAL WATER USE REVIEW

Review of new projects includes assuring that all codes and regulations for efficient water use are complied with. The City will continue to implement this program.

CONSERVATION PRICING, WATER SERVICE AND SEWER SERVICE

The City will continue to charge for water on an increasing block rate schedule. The City does not provide sewer service but works cooperatively with the Sonoma Valley County Sanitation District (refer to Ultra Low Flush Toilet Replacement). The City will continue to implement this program.

LANDSCAPE WATER CONSERVATION FOR NEW AND EXISTING SINGLE FAMILY HOMES

Water efficient landscaping information is available to new and existing homeowners upon request. The City will continue to implement this program.

WATER WASTE PROHIBITION

A staff person responds to water emergencies including water waste calls. Though there is no current measure prohibiting specific water waste practices, the City does provide financial incentives for timely repair of identified leaks in a customer's plumbing. The City will continue to implement this program.

WATER CONSERVATION COORDINATOR

The City utilizes the Agency's Water Conservation Specialists. The City will continue to support this program.

FINANCIAL INCENTIVES

In 1998, a joint incentive washer rebate program with PG&E and the Agency was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased). The City will continue to implement this program.

ULTRA LOW FLUSH TOILET REPLACEMENT

In 1996, the City, in cooperation with the Valley of the Moon Water District and the Sonoma Valley County Sanitation District, initiated a ULF toilet give-away program. The City engaged a consultant to implement a community-based organization toilet retrofit program. The ULF Toilet Give-away Programs #1, 2 & 3 distributed 2,400 toilets with the assistance of Sonoma Valley High School (SVHS). The SVHS students raised approximately \$36,000 for their Leadership. The City will continue to implement this program.

CITY OF COTATI WATER CONSERVATION PROGRAM

Program Overview

In 1994, the City initiated a Ultra-Low-Flush (ULF) toilet retrofit program for residential units. The City offers an incentive of up to \$400 per unit to replace existing fixtures with low-flow toilets, shower heads, and faucet adapters. This is an on-going conservation program, and the City anticipates retrofitting 100 units per year for the next ten years.

In 1995, the City, in conjunction with the Agency, revegetated an area along Cotati Creek with a water-conserving landscape (from Delano Park to Valparaiso Avenue). Approximately 700 native and Mediterranean plants were installed along both banks of Cotati Creek, which serves as a pedestrian corridor/linear park and Agency flood control channel.

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following is a summary of the City's conservation program.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the City provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E. Since 1998, the City makes available to all customers free high quality low-flow showerheads and faucet aerators. The City will continue to implement this device (showerhead and faucet aerators) distribution program.

PLUMBING, NEW AND RETROFIT Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush toilets in all new construction beginning January 1, 1992

The City supports and enforces installation of ULF toilets in all new construction, and is in full compliance with January 1992 state law.

Support of state and federal legislation prohibiting sale of toilets using more than 1.6 gallons per flush.

City building staff and local building and plumbing industry professionals were contacted through ongoing phone support.

Plumbing retrofit

The City distributed kits with toilet retrofit devices, coupons for showerheads (co-op program with PG&E), faucet aerators, toilet dye tabs and written instructions in both English and Spanish to all Cotati residents in May 1991.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

The City's distribution system is monitored for leaks on an on-going basis. The City's billing department notifies water customers of leaks and contacts customers individually. Field staff responds to water waste calls and support customers in finding the source of the leaks. The City will continue to implement this program.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

The City meters all water bought and sold. All 2,058 active and inactive connections are metered; an ongoing meter testing/replacement/upgrade program assures proper meter registering. The City will continue to implement this program.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the City and Agency have co-sponsored training for approximately 10 professionals working in the City of Cotati service area, in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local sites. The City offers training and support of our local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association,

North Coast Chapter, California Landscape Training (CLT) classes and testing. The City will continue to implement this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

In accordance with the Water Conservation in Landscaping Act (AB 325), the City adopted the State's Landscape Water Conservation ordinance in 1994. Plans are checked during the building permit approval process and the ordinance is enforced through random site inspections.

PUBLIC INFORMATION

A comprehensive program is administered by the wholesale supplier, the Agency. Conservation materials are available at City Hall.

SCHOOL EDUCATION

A comprehensive program is administered by the wholesale supplier, the Agency. The Agency's water education staff conducts classroom presentations on request and annually contacts all schools in the service area with offers of water-related field trips, conservation materials and classroom support. The City will continue to implement this program.

WATER CONSERVATION COORDINATOR

The City utilizes the Agency's Water Conservation Specialists. The City will continue to support this program.

FINANCIAL INCENTIVES

A joint incentive washer rebate program with PG&E and the Agency was initiated in 1998. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

See Ultra-Low-Flush Toilet Replacement Program (below).

ULTRA LOW FLUSH TOILET REPLACEMENT

The City has provided ULF toilet replacement for 150 residential units. In 1994, the City initiated a ULF toilet retrofit program for residential units. The City offers an incentive of up to \$400 per unit to replace existing fixtures with low-flow toilets, shower heads, and faucet adapters. This is an on-going conservation program, and the City anticipates approximately retrofitting 100 units per year for the next ten years. This is an on-going program and the City anticipates retrofitting 100 units per year, over the next ten years. The City will continue to implement this program.

FORESTVILLE WATER DISTRICT WATER CONSERVATION PROGRAM

Program Overview

In 1998, a joint incentive washer rebate program with Pacific Gas & Electric (PG&E) and the Sonoma County Water Agency (Agency) was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased).

The following is a summary of the District's conservation programs.

INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND GOVERNMENTAL/INSTITUTIONAL CUSTOMERS

In 1991, the District provided free toilet retrofit kits, coupons for free showerheads, faucet aerators, and toilet dye tabs with instructions in both English and Spanish to all classes of customers. This was a co-sponsored program with PG&E.

PLUMBING, NEW AND RETROFIT

Enforcement Of Water Conserving Plumbing Fixture Standards Including Requirement For Ultra Low Flush Toilets In All New Construction Beginning January 1, 1992

The District supports and enforces installation of ULF toilets in all new construction, and is in full compliance with January 1992 state law.

Support Of State And Federal Legislation Prohibiting Sale Of Toilets Using More Than 1.6 Gallons Per Flush

The District contacted local building and plumbing industry professionals through mailings, training and ongoing phone support.

Plumbing Retrofit

The District sent kits with toilet retrofit devices, coupons for showerheads (co-sponsored with PG&E), faucet aerators, and toilet dye tabs to all District customers in June 1991.

DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

The District's distribution system is monitored for leaks on an on-going basis. The billing department notifies water customers of leaks and contacts customers individually. Field staff respond to water waste calls and support customers in finding source of leaks. The District will continue to implement this program.

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

All 895 connections are metered; an ongoing meter testing/replacement/upgrade program assures proper meter registering. The District will continue to implement this program.

LARGE LANDSCAPE WATER AUDITS AND INCENTIVES

Since 1988, the District and Agency have co-sponsored training for approximately 5 professionals working in the Forestville Water District service area, in landscape irrigation auditing, as described in the 1990 Urban Water Management Plan. The program has been available free of charge, and the training takes place at three local training sites. District continues to offer training and support of our local landscape professionals in the California Polytechnic State University's Landscape Irrigation Auditor program methods through participation in the California Landscape Contractor's Association, North Coast Chapter, California Landscape Training classes and testing. The District will continue to implement this program.

LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, GOVERNMENTAL, AND MULTI-FAMILY DEVELOPMENTS

The District's Water Efficient Landscape Policy is recommended, but not required, for new and existing single-family homes. The District provides guidelines and effective information to residents upon request, and operates under Ordinance No. 4616, County of Sonoma Low Water Use Landscape Guidelines as Section 26-201.6 of the County Zoning Ordinance. The District will continue to recommend this program.

PUBLIC INFORMATION

The District maintains a public information distribution center at the District office; stocks and supplies at least 10 different conservation publications to community groups and individuals on request at no cost to the customer; provides speakers to local community groups and coordinates with wholesale supplier and other utilities (e.g. PG&E) when possible. The District will continue to implement this program.

SCHOOL EDUCATION

A comprehensive program is administered by the wholesale supplier, the Agency. The Agency's water education staff conducts classroom presentations on request and annually contacts all schools in the service area with offers of water-related field trips, conservation materials and classroom support. The District will continue to implement this program.

CONSERVATION PRICING, WATER SERVICE AND SEWER SERVICE

The District has eliminated the declining block rate, and now charges a uniform block rate for water consumed.

WATER CONSERVATION COORDINATOR

The District utilizes the Agency's Water Conservation Specialists. The District will continue to support this program.

FINANCIAL INCENTIVES

In 1998, a joint incentive washer rebate program with PG&E and the Agency was initiated. The program consists of encouraging customers to replace vertical axis clothes washers with high-efficiency frontal axis clothes washers. A \$75 dollar rebate is offered from the Agency, and approximately \$125 from PG&E (depending upon the type of washer purchased). The District will continue to implement this program.

i:\u\erpad\wcs\conserve\plans\water\wcp.doc